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(54) Title: METHOD OF PREVENTING SURVIVAL OF RETROVIRALLY CELLS AND OF INHIBITING FORMATION OF INFECTIOUS RETROVIRUSES

(57) Abstract: The present invention discloses compounds and pharmaceutical compositions which are highly effective at inhibiting the accumulation of spliced and unspliced viral transcripts and their utilization for viral protein synthesis at cellular ribosomes, and at inhibiting the formation of the hypusine residue in cellular eIF-5A precursor proteins, the cellular cofactors that render spliced and unspliced viral transcripts translatable at the ribosomes of infected cells. The invention further relates to methods of using such compounds and pharmaceutical compositions therefrom for inhibiting or preventing viral protein synthesis. Such inhibition causes a dose-dependent release from the virally induced arrest of the otherwise genetically preprogrammed apoptosis of virally infected cells, and in consequence, triggers their apoptotic ablation and the eradication of the chronic infection-mediating provirus integrated into their genome.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT7US04/40236

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/44, 31/41, 31/425
 US CL : 514/345, 348, 358, 365

According to International Patent Classification (IPO or to both national classification and IPC)

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 514/345, 348, 358, 365

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,849,587 A (HANAUSKE-ABEL et al) 15 December 1998(15.12.1998), the abstract, columns 1-6, and the claims	1,7-9,15-17,23-25,31-33,39-40
Y		2-6,10-14,18-22,26-30,34-38,41-46
Y	WO 99/59601 A1 (VAN ASBECK et al) 25 November 1995(25.10.1999), abstract, page 3, and the claims.	1-46
Y	WO 01/12168 A2 (VAN ASBECK et al) 22 February 2001(22.02.2001), the abstract, pages 1-2, and the claims.	1-46
Y	US 6,521,652 B1 (BERGERON) 18 February 2003(18.02.2003), see entire document, particularly, the abstract, and the claims.	1-46
Y	US 2003/0088105 A1 (KRICH et al.) 08 May 2003(08.05.2003), the entire document, particularly, the abstract, the examples, and the claims.	1-46

Further documents are listed in the continuation of Box C. See patent family annex.

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Continuation of B. FIELDS SEARCHED Item 3:
CAPLUS, MEDINE, BIOSIS, EMBASE, search terms: structural search, viral, mRNA, elf-5A, lentiviruses, HIV deferiprone.